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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,925	10/20/2003	Kurt Olov Edvardsson	35947-201483	8334

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EXAMINER

GREGORY, BERNARR E

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/687,925	EDVARDSSON, KURT OLOV	
	Examiner	Art Unit	
	Bernarr E. Gregory	3662	ULW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-18 is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7 and 19 is/are rejected.
- 7) ☒ Claim(s) 2,4,6,8 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

1. Claims 10-18 are allowable over the prior art of record.

None of the prior art of record either taken alone or taken in any possible combination would anticipate or would tend to render obvious Applicant's claimed method as set forth in independent claim 10 that is particularly characterized at least by the claimed method step of "giving said waveguide a length below two times said range resolution of said radar level gauge" taken in the overall context of independent claim 10.

Dependent claims 11-18 are allowable for at least the reasons for which independent claim 10 is allowable.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Edvardsson ('299).

With respect to independent claim 1, Edvardsson ('299) shows the claimed antenna, electronics unit, and waveguide to feed signals to and from the antenna. In addition, column 1, lines 43-65 of Edvardsson ('299) plainly states that the modes are orthogonal ("which form a mutual angle, preferably 90°") and that the waveguide has "90° symmetry in cross section" as claimed.

With respect to the further limitations of dependent claim 19, these are clearly met by Edvardsson ('299) in that Edvardsson ('299) shows one level

gauge according to claim 1 to meet the claim 19 phrase "at least one radar level gauge according to claim 1."

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edvardsson ('299).

With respect to the further limitations of dependent claim 3, since Edvardsson ('299) clearly teaches the use of orthogonal polarizations (column 1, lines 43-53: "preferably 90°"), it would have been obvious to one of ordinary skill-in-the-art that any of the old and well-known orthogonal modes could be used in Edvardsson ('299) depending upon the particular requirements of the context of use, including the old and well-known Left Hand Circular Polarization and Right Hand Circular Polarization.

With respect to the further limitations of dependent claims 5 and 7, it would have been obvious to one of ordinary skill-in-the-art to place the radar level gauge circuitry on a single printed-circuit board for the old and well-known advantages of compactness of size and lessened expense.

6. Claims 2, 4, 6, 8, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Edvardsson ('720) is of interest for circular polarization in a radar level gauge as discussed in columns 1-2 of that reference.

Bååth ('706) is of interest for using circularly-polarized waves of opposite senses in a radar level gauge as mentioned in the abstract of that reference.

Edvardsson ('976) is mentioned as being of interest for showing LHCP and RHCP in a radar level gauge; however, it is not available as a prior art reference against the instant application since the inventive entity is identical to that in the instant application, except for double patenting purposes.

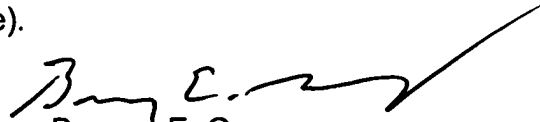
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (703) 306-5765. The examiner can normally be reached on weekdays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (703) 306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Bernarr E. Gregory", with a long, sweeping horizontal line extending to the right.

Bernarr E. Gregory
Primary Examiner
Art Unit 3662